Tommy Zhou

3rd Year Computer Science at the University of Waterloo

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EXPERIENCE

Hydrometric Web & Program Developer, NHS
Sept 2023 - Present
Python, HTML/CSS, Javascript, Microsoft Power Automate
Gatineau, QC

- Data processing, exploration and analysis of hydrometric data sets from all across Canada for the National Hydrological Services (NHS), a subdivision of Environment & Climate Change Canada (ECCC)
- Developing, reviewing, and finalizaing web tools for data visualization

Full Stack Developer, Caribou Contests 🔗
Jan 2023 - April 2023
PHP, HTML/CSS, Bootstrap, JavaScript, Apache, SQL
Remote, ON

- Launched new products and fixed existing bugs on an online educational platform that hosts mathematics and programming contests used by over **500,000** students around the world every month
- Designed and integrated a new programming contest interface including login and feedback forms, a search bar, and a full coding contest functionality, including a code editor, test cases, and question viewer, with **1,000** participants
- Implemented support for Alipay and Turkpay in the online shop to accommodate international purchases; Fixed payment issues/miscalculations with Paypal and Payflow that saved **10%** of revenue, which would have been lost

E-Commerce Advisor, OCC
May 2022 - Aug. 2022
HTML/CSS, JavaScript, Shopify, Square
Toronto, ON

- Developed and upgraded modern, customized, and responsive e-commerce websites for small and medium-sized enterprises/businesses across the GTA

PROJECTS

CampFinder - Web Application 🔗
June 2022 - Aug. 2022
Express.js, Node.js, JavaScript, MongoDB, HTML/CSS, Bootstrap, Heroku, NPM

- Full stack web application aimed to help users discover, post, and review campgrounds in their area, hosted on Heroku
- Frontend created with HTML/CSS, Bootstrap; Client-side validation for forms
- RESTful API endpoints/routing, Backend created using Express, Node.js, and MongoDB; Testing with Postman
- Authentication and authorization to access CRUD functionality implemented using Passport & Express Middleware

Timely - Chrome Extension 🔗
Sept. 2022 - Present
TypeScript, HTML/CSS, React, Bootstrap, Webpack, NPM

- Developed to resolve procrastination by tracking the time the user spends on websites within Chrome using JavaScript, Typescript, and React
- Chrome API and Chrome local storage used to track and store user time data
- NPM, Webpack to bundle modules and manage dependencies

Chess - C++ Program 🔗
Nov. 2022 - Dec 2022

- C++ program with xWindows graphics, created using **Object Oriented Principles** and **Design Patterns** (Visitor and Model View Controller pattern)
- Allow the user to play one or more games of classical chess against another human or against a computer of four distinct skill levels

TECHNICAL SKILLS

Languages
- C, C++, Python, HTML/CSS, PHP, JavaScript, TypeScript, Bash Scripting, R

Technologies/Frameworks
- Bootstrap, Node.js, Express.js, Git/Github, React, Twig, Apache, Webpack, jQuery, Heroku, NPM

Operating Systems
- Linux, Windows

Databases
- MongoDB, SQL, MySQL

Concepts
- Object Oriented Programming
- Database Design & Development
- UML Diagrams and Design Patterns
- MERN & LAMP Stack Development
- Software Development Life Cycle
- Algorithms and Data Structures
- Knowledge of Unit, Integration, and End-To-End Testing

EDUCATION

University of Waterloo
- Candidate for Honours, Bachelor of Computer Science | 3.9/4.0 GPA
- President's Scholarship of Distinction Recipient, Dean's Honour List

Selected Coursework
- Elementary Algorithms
- Design and Data Abstraction
- Object-Oriented Software Development
- Data Structures and Data Management
- Foundations of Sequential Programs

Digital and Professional 🔗
Training Micro-Certification